Pilot Program for Enhanced Access to Advanced Telecommunications and Information Services

Rural Health Care Support Mechanism, WC Docket No. 02-60, Order (reel. Sep. 29, 2006); Order on Reconsideration (reel. Feb. 6, 2007)

Application to The Federal Communication Commission

Submitted by

The Michigan Public Health Institute

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May 7, 2007

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JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

JOHN D. CHERRY, JR.
LT. GOVERNOR

May 2,2007

Commissioner Kevin J. Martin
Chairman, Federal Communications Commission
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

RE: FCC Rural Health Pilot Program

Dear Chairman Martin:

I am writing in support of Michigan's application to the Federal Communications Commission Rural Health Pilot Program to expand state and regional broadband networks and services in rural and underserved areas of Michigan.

Harnessing the power of technology to vastly improve Michigan's health care system has been and continues to be a priority for my administration. For the past two years I have charged the Michigan Departments of Community Health and Information Technology to find ways to utilize technology to greatly improve the quality and reduce the costs of health care in Michigan.

As such, Michigan, with the assistance of more than 200 stakeholders, has developed one of the most comprehensive roadmaps for health information technology and exchange in the nation. We are readily moving to put our plan into action and have set the stage by pulling together communities and stakeholders to implement change through the statewide health care system.

Though we have made monumental advancements, the FCC Rural Health Pilot Program has the power to jump-start significant progress in Michigan. An award from the FCC Rural Health Pilot Program will greatly strengthen Michigan's ability to more efficiently and effectively connect millions of citizens with the health care services they need.

Access to quality health care is an important economic tool that will have a far-reaching effect on the State of Michigan. By using telemedicine to bring experts and specialists to smaller, rural cities, citizens will be able to stay close to their hometown and not need to take time off from work, traveling for the services they need. Not only will employees miss less work, they'll be healthier because access to care has been made easier.

It is important to understand how meaningful this pilot program is for Michigan. As the 8th most populous state in the nation, our geography, economy and population are a unique and diverse mix that covers over two peninsulas. We have 3,288 miles of shoreline, two international border crossings and significant ethnic and cultural diversity can sometimes be a barrier to timely, efficient, effective health care. Utilizing the FCC Rural Health Pilot Program in our state has the power to mitigate these challenges and connect our citizens with necessary and valuable health care.

Thank you for your consideration of Michigan's application. This award would have sizable effect and bring great benefit to the underserved populations in Michigan.

Sincerely,

Jennifer M. Granholm
Governor

JMG/pd/323

Executive Summary

Four decades ago, President Eisenhower and Congress put into motion the largest public works initiative in the history of the United States, the Interstate Highway System. Originally conceived to provide for civil defense, the interstate highway system now touches all aspects of American life – commerce, quality of life, health care, communication, etc. While the scope of the FCC Pilot Program is smaller, four decades from now, its reach has the potential to be as revolutionary.

Michigan fully supports this pilot program, and the scope melds seamlessly with the ongoing work Michigan began in 2005 toward creating a comprehensive health care information network.

Goals

Improving health care for all Michigan citizens by increasing the utilization and demand for telehealth and telemedicine is the compelling goal of this project. By bringing broadband internet access to the public hospitals and primary care clinics serving critical populations, the Michigan FCC Pilot Program Collaborative will improve the quality of care, aligning Governor Jennifer M. Granholm's stated objective of implementing health information technology (HIT) and health information exchange (HIE) in Michigan with the objectives of this program. Michigan's roadmap for HIE and HIT, Michigan Health Information Network's (MiHIN) *Conduit to* ***Cure,*** was created in a collaborative state-wide effort during 2006, and parallels the stated objects of this program.

The connectivity implemented through broadband is an essential component of Michigan's broader initiative and goes well beyond just bringing telehealth and tclemedicine to rural clinics. Michigan has formed a cohesive roadmap, the groundwork has been thoughtfully constructed and Michigan is ready for the deployment of broadband capabilities to create the needed infrastructure for HIE and HIT development.

The Michigan FCC Pilot Program Collaborative identified several distinct goals associated with this program which include:

- Building a telehealth infrastructure and services in the areas of Michigan where the need is the most acute, resulting in a system that is adaptive, affordable, reliable and secure

- Improve medical treatment and outcome through the use of telehealth, telemedicine, and health information exchange

- Improve disaster preparedness by enhancing the public health infrastructure in Michigan's ability to work closely with the United States Coast Guard, Immigration, Customs, the US Border Patrol and the US Department of Homeland Security in a time of emergency

- Improve Michigan's economy and the efficiency and effectiveness of its health care delivery system

Approach

Utilizing a collaborative of state-wide stakeholders facilitates the formation of Michigan's cohesive approach to Michigan HIE, aligning with the State's implementation plan. Michigan State University and the University of Michigan, both nationally known for their roles in telemedicine were brought in and from that point, the team reached out to established networks and the FCC funded telemedicine resource. To broaden scope, associations that represent rural, primary care, tribal health, and hospital providers were conferred with. Finally, efforts of Michigan's nine Medical Trading Areas (MTAs), were brought in to voice their regional plans and activities.

The Michigan FCC Pilot Program Collaborative identified the MTAs to include in the program, giving special emphasis to rural, tribal and underserved populations. Next, the facilities within these MTAs were identified, mapped and categorized by size and need. Finally, the specific type of connection for each facility was determined and a budget for implementation and ongoing costs completed.

Budget

To achieve optimal results, the Michigan FCC Pilot Program Collaborative recommends a two year approach for a two year total of $24,600,000. We have also included a one-year option for a proposed total of $12,100,000. This second option provides a less flexible network that will eventually require rework and higher ongoing costs.

A.
Goals and Objectives

A. Goals and Objectives

How Michigan plans to promote the use of telehealth and fully utilize a newly created broadband network.

The Michigan FCC Pilot Program Collaborative is a diverse set of Michigan's health care stakeholders with an interest in improving health care across the state. The Michigan FCC Pilot Program Collaborative was created to establish an adaptive. affordable, reliable and secure broadband internet network, which will provide access to key health care providers in Michigan. Together, stakeholders are working to set priorities and coordinate a phased expansion of broadband across the state of Michigan focusing on underserved rural areas from both a broadband and medical perspective. The widespread adoption of telemedicine, like virtually all high technology innovations. is particularly dependent on meeting the needs of end users. By utilizing structures and stakeholders already in place, The Michigan FCC Pilot Program Collaborative will be able to rapidly identify and address the needs of Michigan's many communities.

An important part of Michigan's approach is the use of Medical Trading Areas (MTAs). MTAs have been studied and defined in Michigan based on the consumer's zip code and the zip code in which they primarily receive health care services. Distinct patterns emerged and the MTAs in Michigan were defined. The MTAs are headed by a single regional voice and the leadership of the MTAs has played a significant role in the Michigan FCC Pilot Program Collaborative. See page 28 for more information on MTAs. including a map.

Primary Goal

> ***Help public und non-profitproviders connect to state- and regional-wide broadband networks to provide telehealth and telemedicine services throughout the state.***

Ultimately, this network will improve health outcomes of the citizens of Michigan. We have two categories of goals relating to the actual execution of the pilot program.

Network Goals

Working with the FCC, the Michigan FCC Pilot Program Collaborative will establish telehealth infrastructure and services in the areas of Michigan where the need is the most acute. resulting in a system that is adaptive, affordable, reliable and secure. The pilot program will establish an infrastructure that will encourage innovative use of telehealth applications. We plan to combine and expand the existing Regional Telehealth Networks into a state-wide telehealth network and attach those to a nationwide network.

Goal #1 - Expand the telehealthltelemedicine infrastructure

Expand the telehealth/telemedicine infrastructure to provide adaptive, affordable, reliable and secure broadband to all health care providers in the state and interlink existing regional telehealth/telemedicine systems.

Objective(s):

Increase broadband availability and affordability in publicly funded hospitals and clinics in medically underserved and rural areas where broadband bandwidth is limited and/or not affordable

Action(s):

Offset costs of constructing and providing broadband connectivity through implementation and evaluation as follows:

- Tier One Facility – 100 Mb
- Tier Two Facility – 45 Mb
- Tier Three Facility – 10 Mb
- Tier Four Facility – 1.5 Mb

Measurable Outcome(s):

Increase the number of locations that have increased broadband capabilities

Improve reliability and redundancy of broadband networks to ensure dependability of broadband service throughout the state

Monitor long-term sustainability of broadband networks for publicly funded hospitals and clinics

Compare costs for and access to broadband for rural facilities to their urban counterparts

Goal #2 - Provide Michigan's Rural Health care Safety Net providers and Tribal Health Clinics with adequate bandwidth

Michigan is home to twelve federally recognized Indian Tribes. The tribes are primarily located in the MTAs we are focusing on in this application as they are historically a population that is underserved both medically and from a broadband perspective. Michigan's plan to care for diverse underserved populations can be a model for similar populations nationwide.

In addition. Michigan's safety net providers are a significant thread in Michigan's health care delivery system. They deliver a sizable amount of health care to the

uninsured. underinsured. and other underserved groups in the state's rural populations. Michigan's rural health network includes Michigan's Rural Public Health Departments (PA 368 of 1978); and Michigan's Rural Health Clinics (PL 95-210). Adequate bandwidth will enable them to connect to referral and regional hospitals for telehealth applications.

Our plan emphasizes inclusion of groups that currently do not have access to broadband and serve important populations. **A** comprehensive, inclusive plan will help insure that Michigan's most vulnerable citizens have access to quality care at a reasonable cost.

Objective(s):

Level the playing field for citizens in rural areas to insure that they have access to the same services as those in urban areas

Initially focus on rural areas and underserved populations as ***priority*** *areas* for connectivity to the state-wide backbone

Action(s):

Offset cost of constructing and providing broadband connectivity of at least 1.5MB to Michigan's Rural Health Care Safety Net providers, to ensure that all of Michigan's citizens have equivalent access to the quality health care services

Measurable Outcome(s):

Track the increase in Rural Health care Safety Net providers and Tribal Health Clinics that have new or expanded broadband capabilities

Goal #3 - Provide feedback to FCC for future changes of FCC rules and policies

The overarching questions of why the FCC's rural health care fund is underutilized and how to improve the health care of rural residents with broadband networks must be answered. The Michigan Application differs from other submissions in a significant manner. The Michigan Application seeks to deploy broadband throughout the state to facilitate the use of telemedicine and telehealth to address access issues for rural Michigan citizens. However. the Michigan application will go a step further than simple planning and deployment. We will formally evaluate multiple aspects of this project. ranging from planning to deployment to utilization with the goal of providing the FCC with prescriptive research results that can be employed for defining and refining policy initiatives in this area. To fulfill the

objectives of the FCC Pilot Program set forth by Chairman Kevin Martin and other FCC commissioners (FCC. 2006), the timely and satisfactory deployment of broadband technology will be a major focus of the pilot program evaluation, To fully understand the barriers and impacts of this deployment regarding telemcdicine, the effectiveness of' both telemedicine technologies and services must also be assessed. We also want to address their secondary concerns of ensuring that the issues raise after the 2004 order and ensure that networks being funded be built to include service to rural areas. The evaluation team will monitor the deployment and performance of broadband technology and relationships with broadband vendors throughout the pilot program. This type of oversight will reduce waste, abuse and the chance of fraud in the use of these funds.

The first phase of the evaluation will immediately address the issues of barriers to adoption that frame the concerns of the FCC Commissioners. **A** needs assessment survey will be completed among senior administrators for rural health systems, critical access hospitals. short term general hospitals, skilled nursing facilities, rural health clinics, federally qualified health centers, and primary care physicians located in Michigan's 58 rural counties.

The second phase of the evaluation will provide an assessment of the impact of the pilot program on the health and quality of life of participating Michigan residents through a controlled evaluation. Experimental and control groups will be randomly selected from among units that volunteer to take part in the controlled evaluation outcome and patient satisfaction results will be compared between experimental and control conditions using repeated measures analysis of variance.

The third phase will provide an assessment of technical and vendor performance during the trial. Throughout the project. evaluation team members will establish milestones for broadband deployment monitor the timeliness and quality of performance of broadband technology and monitor activity on telemedicine networks. We will also obtain assessments of satisfaction with the performance of telemedicine applications and network services provided by participating vendors.

The fourth phase will take advantage of the telecommunication economic and policy expertise of Michigan State University's James H. and Mary B. Quello Center for Telecommunication Management & Law located within College of Communication Arts and Sciences. Faculty from the Quello Center will provide an analysis of current FCC policies and project impact estimates for various amendments to the policy based on the Michigan project. At the conclusion of the project. recommendations for specific policy action will be provided from these analyses.

Objective(s):

Evaluate current environment and offer input for changes in policy

Uncover needs and key design parameters for telemedicine applications in the three target specialties

Identify factors that limit the adoption of rural telemedicine

Screen and identify participants for the controlled evaluation

To prevent waste. abuse. fraud and to ensure that broadband networks being funded and built include service to rural areas

Action(s):

Monitor the deployment and performance of broadband technology and relationships with broadband vendors throughout the pilot program and report out on their performance

At the conclusion of the project, recommendations for specific policy action will be provided from these analyses

Measurable Outcome(s):

Assess the impact of the pilot program on the health and quality of life of participating Michigan residents through a controlled evaluation

Assess the technical and vendor performance during the trial as measured by quality and financial performance

Analyze current FCC policies and project impact estimates for various amendments to the policy based on the Michigan project

Application and Usage Goals of the Network

Once built, the network is only as good as the application and that run over it and more importantly the outcomes that are derived and the benefits that are received from the use of the tools that are built. In the case of the Michigan network, the true test will be the improvements in rural health care delivery for Michigan's citizens.

I. Improve Medical Treatment and Outcomes

Telemedicine provides a viable solution to help patients in rural areas reach the needed care that can be hundreds of miles of challenging terrain away and often unreachable due to Michigan's intense winters. Telehealth applications will allow patients from across the state to access critically needed medical specialists in a

variety of practices. including cardiology, pediatrics, and radiology, without leaving their homes or their communities

Goal #4 - Improve access to telehealth applications

Objective(s):

Use the network to facilitate distance treatment. Current Telehealth applications include:

- **Referral Services:** One of the most common uses of Telehealth is remote referral services. Typically this involves a specialist assisting a general practitioner in rendering a diagnosis or planning a treatment. The use of advance communication technology enhances this interaction and improves patient care. Video conference technology allows for natural conversation and interaction. With the recent advances in high-definition video conferencing, it enables remote physicians a level of clarity never before available. Instantly sharing patient information, labs. history. images and monitoring data over a digital network allows for faster diagnosis and treatment.

- **Remote Image Review:** Medical imaging has been one of the fastest growing diagnostic tools in recent years. Radiology makes extensive use of telehealth with thousands of images read by remote providers each year. Traditional X-rays, mammograms, even nuclear medicine, high-resolution ultrasounds, CT and MRI scans can be sent to a remote expert anywhere in the world over secure Internet connections. Medical imaging is very bandwidth intensive; a complete set of images from a high-resolution scan can easily reach into the hundreds of megabytes.

- **Patient Consultations:** Using the video conference and data sharing technology, patients can meet directly, all be it remotely, with a specialist not available in their area. This might originate from a rural clinic to a physician's office at a referral hospital or national research institution. Providing patient access to specialists without having to travel lowers the cost and speeds up treatment.

- **Remote Monitoring:** Utilizing the secure network, patients can be monitored remotely. Monitoring devices can remotely collect and send data to a monitoring station for interpretation. Using this same technology. patients can even do some monitoring from home. This "home telehcalth" allow patients to collect and report data without a clinical visit or a home nurse visitation. Home telehealth is particularly beneficial in treating and managing chronic diseases.

Action(s).

Provide access to telehealth applications using new infrastructure

Measurable Outcome(s):

Improved access to care measured by increased usage of telehealth applications

Goal #5 - Facilitate the expansion of Health Information Technology (HIT) and Health Information Exchanges (HIE)

HIE is an infrastructure to enable movement of health care information electronically across organizations within a region or community. It also includes agreed-upon business relationships and processes to facilitate information sharing across organizational boundaries. It has the benefit of lowering cost and improving patient care.

In Governor Jennifer M. Granholm's 2006 State of the State Address, the goal of extending health information technology to every health care setting was highlighted:

> "We will help our health care industry stop depending on your memory and their paper records as databanks. We are going to use technology to vastly improve the system. In the future, you will be able to give your pharmacist, your doctor. or the emergency room immediate access to your information, hut you will control who sees it and what it is used for."

In Governor Jennifer M. Granholm's 2007 State of the State Address, the efforts of the MiHIN Commission were highlighted:

> "It's easy to forget that new technology cannot only save lives directly, but it can also improve the quality. safety, and efficiency of medical care for our citizens. Our Michigan Health Information Network has developed one of the most comprehensive blueprints in the nation to make it easier for doctors to get patient medical histories and other vital information, as well as allow Michigan citizens to have improved access to their own information."

In addition to this high profile exposure HIE received in Governor Jennifer M. Granholm's State of the State Addresses for the last two years, her FY2007 budget contained a $9.5 million appropriation for HIE initiatives and her FY2008 budget contains a $10 million appropriation for HIE. In a State facing a one billion dollar shortfall in FY2007 and a three billion dollar shortfall in FY2008, this constitutes an extraordinary commitment to HIE.

Objective(s)

Implement the MiHIN roadmap by creating infrastructure for the exchange of health information on a statewide basis

Accelerate the development and implementation of health information exchanges in Michigan

Increase the use of HIT applications over the new infrastructure

Action(s):

Connect all health care facilities to their regional HIE

Promote the use of new infrastructure to support the implementation of the MiHIN roadmap within regional heath information exchanges

Measurable Outcome(s)

Increase the creation and use of HIE statewide

Increase adoption of HIT applications

Goal #6 - Support the President's goal of implementing Electronic Medical Records (EMRs) nationwide

EMRs can provide cost savings as well as improve the efficiency and safety of health care. Health care technology can provide alerts and reminders to the clinician warning of possible injury or missed opportunities for prevention. They can also enable continuous 2417 access to records as well as simultaneous access to a single record by multiple users. Additionally, they can reduce the cost of record management. as compared to paper records.

Currently Michigan only has about a 20 to 25% penetration of EMRs, This is barely enough to start to see the benefits. EMRs are extremely bandwidth intensive, with an X-ray reaching into the tens of Mb and a MRI scan easily toping out over one hundred Mb. A statewide high-speed communication network will open up access to care, expedite the population of EMRs and provide comprehensive health care information to physicians and specialists providing care, no matter where they are located.

Objective(s).

Accelerate the development and implementation of EMRs in Michigan

Action(s)

Identify within regional health information exchanges HIT applications such as e-Prescribing. electronic medical records (EMR), etc.

Measurable Outcome(s).

Measure the increase in adoption of EMRs

Goal #7 – Improve the security, privacy, and fraud prevention capabilities of the health care system

Health care fraud – i.e , the deliberate submittal of false claims to private health insurance plans and/or tax-funded public health insurance programs such as Medicare and Medicaid - is a serious and still-growing nationwide crime phenomenon, linked directly to the nation's ever-growing annual health care outlay. The bottom line: of the nation's annual health care outlay, at least 3 to 10 percent of our health care annual expenditure each year are fraudulent.

Although the immediate targets and victims of that fraud are private health payers and government-funded health plans, all of us ultimately pay for the crime – through higher health insurance premiums (or fewer benefits) for employers and individuals. higher taxes. and higher insurance co-payments for privately and publicly insured patients. The most common types of fraud committed by dishonest providers are:

- Billing for services that were never rendered — ither by using genuine patient information to fabricate entire claims or by padding claims with charges for procedures or services that did not take place
- Billing for more expensive services or procedures than were actually provided or performed, —i.e.. falsely billing for a higher-priced treatment than was actually provided
- Performing medically unnecessary services — seen very often in nerve-conduction and other diagnostic-testing schemes. Recent schemes have resulted in clinics performing unnecessary, and sometime harmful. surgeries on patients who have been recruited. and paid, to have unnecessary surgeries performed
- Misrepresenting nun-covered treatments **as** medically necessary covered treatments — widel) seen in cosmetic-surgery schemes, in which non-covered cosmetic procedures such as "nose jobs," "tummy tucks," liposuction or breast augmentations, for example. are billed to patients' insurers as deviated-septum repairs. hernia repairs, or lumpectomies

Health care fraud features the theft of very large amounts of money. However, the damage it does goes well beyond financial losses. More important is its inherent

exploitation of individuals and their insurance information as the basis for falsified claims:

- Falsification of Patients' Diagnoses and/or Treatment Histories
- Theft of Patients' Finite Health Insurance Benefits
- Physical Risk to Patients

The perpetrators of some types of fraud schemes deliberately and callously place their trusting patients at significant physical risk — illustrating vividly why federal law provides for longer potential prison terms in health care fraud cases that result in a patient's injury or death.

By building a broadband network to all health care providers, establishing health information exchanges and storing medical information in a more accessible electronic format. fraud detection specialists can more effectively detect and report fraud cases. The fraud detection tools available in other industries that already store and transmit information electronically can be applied to health care information with minor modification and will exponentially make the effort far more comprehensive in scope.

Objective(s):

Expand the fraud detection capabilities

Action(s):

Adapt existing fraud detection tools to electronic health care information

Measurable Outcome(s):

Measure the increase in fraud convictions

Measure the decrease in fraud incidence

Goal #8 - Improve Chronic Disease Management

Three-quarters of the national health budget of $2 trillion – about 16% of 2005 Gross Domestic Product (GDP)– is spent on chronic disease. Both international and national research has shown the potential of telemonitoring applications in management of chronic disease. by improving the ability of patients and physicians to monitor conditions and. perhaps more importantly, by increasing patient involvement with their own care. which improves health outcomes. Home

telemonitoring of chronic diseases appears as a promising patient management approach that produces accurate and reliable data, empowers patients. influences their attitudes and behaviors. and potentially improves their medical conditions.

Specific issues for adults (age 18 and over) in Michigan for the distribution of health risk factors based on the 2004 Michigan Department of Community Health (MDCH) behavioral risk factor survey include:

- 1.9 million are obese (BMI 30+)
- 1.7 million smokers
- 1.6 million get no physical activity
- 1.6 million live with a significant disability
- 1.0 million consider their health status fair or poor
- 628.000 asthmatics
- 575,000 diabetics
- 355.000 heavy drinkers
- 16,200 living with HIVIAIDS. half of whom do not know they are infected

The leading four causes of death in Michigan residents (2005 *Michigan* ***Resident*** *Death File)* revealed that over half of all Michigan deaths are related to chronic diseases.

- Heart disease 28.9%
- Cancer 23.1%
- Stroke 5.8%
- Chronic Lower Respiratory Disease 5.1%

Objective(s):

Increase chronic disease management via telemedicine and telehealth applications

Action(s):

Make specialists more available to patients and local health professionals to expedite treatment

Increase chronic disease treatment done through telehealth/telemedicine applications

Measurable Outcome(s):

Reduce Michigan's chronic disease rate as measured by MDCH's behavioral risk factor survey

Decrease the morbidity rates of Michigan's chronically ill

Goal #9 – Improve the quality and patient safety of health care delivery

Telemedicine can have a significant impact on individual health. By increasing quality of care with additional services and resources, health care providers in rural areas that might otherwise not have timely access to such resources, can positively impact individual health. which in turn has a beneficial impact on longevity.

A classic example of this from Michigan is the Michigan Care Improvement Registry (MCIR). MCIR is an award winning, state-of-the-art electronic immunization tracking system for all Michigan citizens who receive, or are offered, immunizations anywhere in the state. Created to report communicable and serious communicable diseases. MCIR's success has propelled Michigan from being ranked last as a provider of childhood immunizations, to achieving and maintaining a top 10 ranking in the nation.

Providing rural Emergency Departments with greater and more timely access to medical information. whether it be about an individual patient or a specific topic, can be essential or even life saving. With Michigan's unpredictable weather, transporting patients can be as much of an issue as medical condition. Telemedicine consultations can dramatically improve treatment outcomes, just as in person consultations. but in instances where travel would present too great of a risk for the patient.

Improving accuracy of diagnosis will allow more patients to be diagnosed and treated correctly during the initial point of care contact. Rural practitioners with broadband internet access will have the ability to consult online resources, (such as Medscape and PIER). as well as with other urban colleagues, hospitals and institutions. Rural areas often times have limited access to specialists and the ability of these areas to quickly communicate with other providers will help improve treatment for their patients.

- Reducing medical errors with the use of "tele-assistance" (real-time interaction with specialists. via telephone, web access or video conference), by allowing practitioners located in rural areas to consult with other physicians. and specialists not previously available on their diagnosis of a patient, more thorough and accurate diagnosis will be a likely outcome, especially when dealing with complicated or rare conditions.

- In addition. diagnosis accuracy will improve to an even greater extent with the advanced use of electronic peripherals, such as otoscope, dermascope, stethoscope. opthalmoscope. arthroscopy, colposcope, sigmoidoscope and odoscopy to share live images and data between providers.

Doctors in Michigan's rural areas, who generally provide a majority of care for their patients. will have more time for those patients as their travel time from facilities will be significantly reduced with the use of video conferencing and other web-based applications. The time practitioners use to research medical issues will also be decreased by high-speed access to the internet.

Michigan will use the Health Plan Employer Data and Information Set (HEDIS), a national standard quality measurement methodology as a tool to measure performance on important dimensions of care and service. Altogether, HEDIS consists of 71 measures across **8** domains of care. Because so many plans collect HEDIS data, and because the measures are so specifically defined, HEDIS makes it possible to compare the performance of health plans on an "apples-to-apples" basis. Health plans also use HEDIS results themselves to see where they need to focus their improvement efforts.

HEDIS is designed to provide purchasers and consumers with the information they need to reliably compare the performance of health care plans. HEDIS measures address a broad range of important health issues. Among them are the following:

- Asthma Medication Use
- Persistence of Beta-Blocker Treatment after a Heart Attack
- Controlling High Blood Pressures
- Comprehensive Diabetes Care
- Breast Cancer Screening
- Antidepressant Medication Management
- Childhood and Adolescent Immunization Status
- Advising Smokers to Quit

Consumers also benefit from HEDIS data through the State of Health Care Quality report. a comprehensive **look** at the performance of the nation's health care system.

Objective(s):

Utilize the new infrastructure to advance telehealth and telemedicine services

Action(s):

Make specialists more available to patients and local health professionals to expedite treatment

Make patient information (labs, x-rays, etc.) available to local health professionals. at the point of care

Improve the availability to consult with distant providers

Expand health care services and resources available to health professionals

Measurable Outcome(s)

Use HEDIS Measures to determine improvements in patient safety and quality

Goal #10 – Mitigate Michigan Challenges

Michigan's geography is both an asset and a challenge. At 98,000 square miles, and *3,288* miles of shoreline, Michigan is the eighth largest state in the United States, a significant percentage of which is separated by five miles of open water from the rest of the state. Over 90% of Michigan's Upper Peninsula is natural forest. Winter storms in Michigan's Upper Peninsula have been known to drop up to *360* inches of snow annually and individual storms pack winds of **80** mph off the Great Lakes. Patients can benefit from reductions in the amount and cost of their time and travel. For those living in rural areas, travel time for a consultation or a meeting with a specialist can mean several hours of driving, time off work and loss of productivity for employers. With the use of broadband and telehealth applications. for a state with Michigan's geographic configuration, patients gain access to previously unavailable specialists and facilities.

When Michigan patients needing treatment can avoid the time and expense of transportation to facilities located hours away. they and their families can benefit from a considerable reduction in stress during an otherwise highly stressful time. In addition. there is likely to be a cost savings for payers, as the need for ambulance transfers is reduced and hospital admission and inpatient days are subsequently lowered.

Michigan's economy is highly dependent on tourism. Its geography supports winter sports. (skiing, snowboarding, and snowmobiling,) and summer sports, (water sports, hunting. fishing and golf). There are major golf developments at many of the ski areas, providing a year round draw for tourists. With the Great Lakes and many smaller lakes located around the state. Michigan also has the largest number of recreational boaters of any state. Recreational activities all have